



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION I  
475 ALLENDALE RD, STE 102  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

November 14, 2022

David P. Rhoades  
Senior Vice President  
Constellation Energy Generation, LLC  
President & Chief Nuclear Officer (CNO)  
Constellation Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2 –  
EMERGENCY PREPAREDNESS INSPECTION REPORT 05000317/2022501  
AND 05000318/2022501

Dear David Rhoades:

On October 13, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Calvert Cliffs Nuclear Power Plant and discussed the results of this inspection with Patrick D. Navin and other members of your staff. The results of this inspection are documented in the enclosed report.

No findings or violations of more than minor significance were identified during this inspection.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

Daniel L. Schroeder, Chief  
Security, Emergency Preparedness, and Incident  
Response Branch  
Division of Radiological Safety and Security

Docket Nos. 05000317 and 05000318  
License Nos. DPR-53 and DPR-69

Enclosure:  
As stated

cc w/ encl: Distribution via LISTSERV

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT – EMERGENCY  
 PREPAREDNESS INSPECTION REPORT 05000317/2022501 AND  
 05000318/2022501 DATED NOVEMBER 14, 2022

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**U.S. NUCLEAR REGULATORY COMMISSION  
Inspection Report**

Docket Numbers: 05000317 and 05000318

License Numbers: DPR-53 and DPR-69

Report Numbers: 05000317/2022501 and 05000318/2022501

Enterprise Identifier: I-2022-501-0012

Licensee: Constellation Energy Generation, LLC

Facility: Calvert Cliffs Nuclear Power Plant

Location: Lusby, MD

Inspection Dates: October 10, 2022 to October 13, 2022

Inspectors: J. Ambrosini, Senior Emergency Preparedness Inspector  
J. Lilliendahl, Senior Emergency Response Coordinator  
J. Schoppy, Senior Reactor Inspector  
S. Seeley, Regional Agreement State Program Officer

Approved By: Daniel L. Schroeder, Chief  
Security, Emergency Preparedness, and Incident Response Branch  
Division of Radiological Safety and Security

Enclosure

## **SUMMARY**

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an emergency preparedness biennial exercise inspection at Calvert Cliffs Nuclear Power Plant, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

### **List of Findings and Violations**

No findings or violations of more than minor significance were identified.

### **Additional Tracking Items**

None.

## **INSPECTION SCOPES**

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

## **REACTOR SAFETY**

### 71114.01 - Exercise Evaluation

#### Inspection Review (IP Section 02.01-02.11) (1 Sample)

- (1) The inspectors evaluated the biennial emergency plan exercise. The exercise scenario simulated a loss of offsite power following a solar magnetic disturbance and an emergency diesel generator failure which resulted in the loss of all onsite and offsite power sources to the emergency buses that could not be restored in less than four hours.

### 71114.04 - Emergency Action Level and Emergency Plan Changes

#### Inspection Review (IP Section 02.01-02.03) (1 Sample)

- (1) The inspectors evaluated the following submitted Emergency Action Level and Emergency Plan changes.
  - 21-41, EP-AA-1011 Addendum 3, Calvert Cliffs Nuclear Power Plant Emergency Action Levels, Revision 7
  - 21-68, EP-AA-1011 Addendum 3, Calvert Cliffs Nuclear Power Plant Emergency Action Levels, Revision 8
  - 22-25, Calvert Cliffs Nuclear Power Plan Intake Bay Level Instrument Upgrade ECP-20-000448 Evaluation, Revision 0
  - 22-45, EP-CA-124-F-17, CCNP B.5.B Pump and Auxiliary Equipment, Revision B2222EP-AA-1011 Addendum 3 EP-AA-1011 Addendum 3

This evaluation does not constitute NRC approval.

### 71114.08 - Exercise Evaluation - Scenario Review

#### Inspection Review (IP Section 02.01 - 02.04) (1 Sample)

- (1) The inspectors reviewed and evaluated the proposed scenario for biennial emergency plan exercise on August 4, 2022.

## **OTHER ACTIVITIES – BASELINE**

### 71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

#### EP01: Drill/Exercise Performance (IP Section 02.12) (1 Sample)

(1) July 1, 2021 through June 30, 2022

#### EP02: Emergency Response Organization Drill Participation (IP Section 02.13) (1 Sample)

(1) July 1, 2021 through June 30, 2022

#### EP03: Alert And Notification System Reliability (IP Section 02.14) (1 Sample)

(1) July 1, 2021 through June 30, 2022

## **INSPECTION RESULTS**

No findings were identified.

## **EXIT MEETINGS AND DEBRIEFS**

The inspectors verified no proprietary information was retained or documented in this report.

- On October 13, 2022, the inspectors presented the emergency preparedness inspection results to Patrick D. Navin and other members of the licensee staff.

**DOCUMENTS REVIEWED**

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71114.01	Miscellaneous		Calvert Cliffs Nuclear Power Plant 2022 Emergency Preparedness Biennial Exercise Scenario	07/14/2022
		EP-AA-1000	Exelon Nuclear Standardized Radiological Emergency Plan	Revision 33
		EP-AA-1011	Exelon Nuclear Radiological Emergency Plan Annex for Calvert Cliffs Station	Revision 5